Stage 7 Mathematics – Fractions Mastery Series

Worksheet 1 – Equivalent & Simplifying Fractions

Time: 45 minutes

Total Marks: 45

Name: _____ Date: _____

Instructions: Show all your working. Simplify your answers where possible.

Section A – Skill Builder (1 mark each)

1. Simplify 18/24

2. Simplify 35/49

3. Simplify 42/56

4. Write two equivalent fractions for 3/5

5. Write two equivalent fractions for 7/8

6. Express 4/6 in its simplest form

7. Express 16/20 in its simplest form

8. Convert 9/3 into a whole number

9. Convert 12/4 into a whole number

10. Write 5/10 in its lowest terms

Section B – Standard Problems (2–3 marks each)

11. Find three equivalent fractions for 2/7

12. Simplify 54/72

13. Determine whether 6/9 and 2/3 are equivalent. Show working.

14. A fraction is equivalent to 4/9. The numerator is 20. Find the denominator.

15. Simplify 81/108

16. Write 15/45 as a fraction in its simplest form and explain your steps.

Section C – Word Problems (3–4 marks each)

17. A recipe uses 6/8 cup of milk. Simplify this fraction.

18. A class completed 12/16 of a project. Write this fraction in its simplest form.

19. A student shaded 9/12 of a shape. Is this equivalent to 3/4? Explain.

20. A tank is filled to 25/100 of its capacity. Simplify this fraction.

Section D – Challenge (4 marks each)

21. Find the smallest fraction equivalent to 45/60. Explain how you know it is the smallest.

22. If 8/a is equivalent to 4/9, find the value of a.

Answer Key – Worksheet 1

1. 3/4

2. 5/7

3. 3/4

4. 6/10, 9/15 (answers may vary)

5. 14/16, 21/24 (answers may vary)

6. 2/3

7. 4/5

8. 3

9. 3

10. 1/2

11. 4/14, 6/21, 8/28 (answers may vary)

12. 3/4

13. Yes, both equal 2/3

14. 45

15. 3/4

16. 1/3

17. 3/4

18. 3/4

19. Yes

20. 1/4

21. 3/4

22. a = 18